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Figure 5

Figure 1

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Figure 4A Figure 4B Figure 4C

Figure 3

Figure 4

Figure 2

50 CGGTGTCCCT .CTT.	100 AAGCAGCTGC AA.	150 GCGGGCGCGG .ATA.A TACA.A	200 CGTCGGTGGC GT
GCTGCGGCGG CT.	CTCGTCGCGG AAT CAGTA	GGGTGCGGGT .ATA.A	GCGTCGTCGT TTAGCA CAGC
CAACGCCGCG TA TGA	CGGCGGCGTT GCTA GCTC	GGGGGGATGC CCA TAA	GGTGGCGTCC CAC ACG
50 CGA CCATGGCGTC CAACGCCGCG GCTGCGGCGG CGGTGTCCCT A. TTAG TACT. CTT. T. GTAG TG.ACTTAG TG.A	100 GGACCAGGCC GTGGCGGCGT CGGCGGTT CTCGTCGCGG AAGCAGCTGC AA.AA.A.A GCT.AA.A.TA.A.A. ATGTT.CA GCT.CCAGTAAT.A.	150 GGCTGCCCGC CGCGGCGCGC GGGGGGATGC GGGTGCGGGT GCGGGCGCGG AA ACTA.ACCA .ATA.AATA.A .TCG GTCA .TAA .AC TACA.A	200 GGGCGGCGG AGGCGGTGGT GGTGGCGTCC GCGTCGTCGT CGTCGGTGGC TAT.A CACTTAGCA GT CA.ATC ACCGCAGCCAGTT
1 ATGGCGGCGA TA.	51 GGACCAGGCC AAA ATG		151 GGGCGGCGGG TA
OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM

Figure 1A

GGCG GCGAAGGCGG AGGAGATCGT GCTCCAGCCC ATCAGGGAGATTAT. TT.AATTA.AATCA.AT T.GAGACA.	300 igggc ggttcagctg ccagggtcca agtcgctctc caacaggatc C.A.AT.AT.AAGAGCTT	301 CTCCTCCTCT CCGCCCTCTC CGAGGGCACA ACAGTGGTGG ACAACTTGCTGT.GTAT GA TT TTCTTGA. :GGGAGCGTATTCT.	351 GAACAGTGAG GATGTTCACT ACATGCTTGA GGCCCTGAAA GCCCTCGGGCTGTAT.CGT.A TCCACGCAGGT.GT.GT.GT.GT.GT.GT.GT.GT.GT.G
GCTCCAGCCC TT.AAT TGAG	AGTCGCTCTC AGCT	ACAGTGGTGG	GGCCCTGAA/ TC(AGA
AGGAGATCGT T .AAT	CCAGGGTCCA TAAG	CGAGGGCACA GA	ACATGCTTGA .TA
GCGAAGGCGG TA.	GGTTCAGCTG CAAT.A GC	CCGCCCTCTC .AT .GGG	GATGTTCACT
201 AGCGCCGGCG TT TA	251 TCTCCGGGGC .AG	301 CTCCTCCTCT GT.GT.	351 GAACAGTGAG T
OSEPSPS_Nat OSEPSPS_AT OSEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM

Figure 1B

450 CGTTGGCTGT TAT AGAC	500 TGCAACTCTT .AG	550 GCCGTGACTG GCA.	600 ACGAATGAGG GAC.T
GAGCTGTAGT	AAAGAGGAAG	CTTGACAGCA	ATGGAGTGCC
.CAG	GA	TTT	G
450 GTGGA AGCAGATAAA GTTGCAAAAA GAGCTGTAGT CGTTGGCTGTAGCCAG TATT GTCGCGCAC	500 CAAGT TTCCTGTTGA GAAGGATGCG AAAGAGGAAG TGCAACTCTT GCA ATGAAG TCAGACCAGTT.G	550 GGAAC GCTGGAATCG CAATGCGATC CTTGACAGCA GCCGTGACTGTCGCGAG TTTGCAACA.AG .CTCGC	600 GGTGG AAATGCAACT TATGTGCTTG ATGGAGTGCC ACGAATGAGG A CCACCAG GAC.T G TCCCGCTTGC.C
AGCAGATAAA G GTC	TTCCTGTTGA .CA	GCTGGAATCG 	AAATGCAACT CCA TC
401	451	501	551
TCTCTGTGGA	at GGTGGCAAGT	CTTGGGGAAC	CTGCTGGTGG
.TA	FG	TC.CT	.CA
OsEPSPS_Nat	OsEPSPS_Nat	OsEPSPS_Nat	OsEPSPS_Nat
OsEPSPS_AT	OsEPSPS_AT	OsEPSPS_AT	OsEPSPS_AT
OsEPSPS_ZM	OsEPSPS_ZM	OsEPSPS_ZM	OsEPSPS_ZM

Figure 1C

	•	
700 GTCAAGGGAA TA	750 CATCAGCAGT TTTCG TTC.TCG	800 TTGGGGATGT .GA
ACCTGTTCGT GACA.A TAGG	TCTCTGGTTC .GGCAG .AAGAG	CCTTTGGCCC AATT ACGT
CTGAATGCCC GT	AAGGTTAAGC C	800 CAGTACTTGA GTGCCTTGCT GATGGCTGCT CCTTTGGCCC TTGGGGATGTTC.TT CTC.C
TTCCTTGGCA GT.	TCCTGGTGGC GGCA CACA	GTGCCTTGCT CTC.C CCGCT.
651 TGTCGACTGT CAT	701 TTGGAĞGACT .CTG	751 CAGTACTTGA TC.TT
OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OSEPSPS_Nat OSEPSPS_AT OSEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM
	651 SEPSPS_Nat TGTCGACTGT TTCCTTGGCA CTGAATGCCC ACCTGTTCGT GTCAAGG SEPSPS_AT CATGTGT. G.ACA.ATA. SEPSPS_ZMATT.GGAG TAGGA	SEPSPS_Nat TGTCGACTGT TTCCTTGGCA CTGAATGCCC ACCTGTTCGT GTCAAGG SEPSPS_AT C.A.TG.T. G.T. G.A.CA.A.T.A. SEPSPS_AT C.A.TT.G.G. A.G.T. G.A.CA.A.CA.A 701 SEPSPS_Nat TTGGAGGACT TCCTGGTGGC AAGGTTAAGC TCTCTGGTTC CATCAGC SEPSPS_AT .C.T.G. G.G.C.AC G.G.CAG T.TTCG SEPSPS_AT .C.T.G. G.G.C.AG.G.T.AA.GAG T.TTCG

Figure 1D

850	GAGATCGAA ATCATTGACA AACTAATCTC CATTCCTTAC GTTGAAATGA	CGTGG	900 ATT GATGGAGCGT TTTGGTGTGA AGGCAGAGCA TTCTGATAGT	.C. TAGGTC AGCC GCAA.AA ATA AGCTC.	950	GAT TCTATATTAA GGGAGGCAG AAGTACAAAT CTCCTGGAAA	. G C	1000	GTT GAAGGTGATG CCTCAAGCGC GAGCTATTTC TTGGCTGGTG	.TCTC C.TGA.	CAC.
	AACTAATCTC (. G C A	TTTGGTGTGA /	GT.		GGGAGGGCAG /			CCTCAAGCGC (.TTCT	TTC
	ATCATTGACAT.		GATGGAGCGT	TAG		TCTATATTAA			GAAGGTGATG	G	GCC.
801	GGAGATCGAA TG	TAT	851 CATTGAGATT	cc.gc.	901	TGGGACAGAT	TC.G.	951	TGCCTATGTT	A	gg
	OsEPSPS_Nat OsEPSPS_AT	WZ_	EPSPS_N	OsEPSPS_AT OsEPSPS_ZM		OSEPSPS_Nat	ζ.Ζ.		\geq		OsEPSPS_ZM

Figure 1E

1001 CTGCAATCAC TGGAGGCACT GTGACAGTTC AAGGTTGTGG TACGACCAGT .GTAAACGCCAA .ATT CTGG AAGC	1100 GTG ATGTCAAATT TGCTGAGGTA CTTGAGATGA TGGGAGCAAA CGGCATC	1101 GGTTACATGG ACTGACACCA GTGTAACCGT AACTGGTCCA CCACGTGAGC A.A.GA.GAT CG.G.A.TTA.AG.TA.T.GT CACGTTG.A.	1151 CTTATGGGAA GAAACACCTG AAAGCTGTTG ATGTCAACAT GAACAAATG CC AGTTGCGTTTG .CCTGAGCGTG
AAGGTTGTG(.GCC	CTTGAGATGA	AACTGGTCC/ T	ATGTCAACAT TT
GTGACAGTTC CG.	TGCTGAGGTA C CAAC	GTGTAACCGT CGGA CAC	AAAGCTGTTG GCG.
TGGAGGCACT AA CT	ATGTCAAATT .CGG	ACTGACACCA AAT	GAAACACCTG AGTT
1001 CTGCAATCAC .GTA	1051 TTGCAGGGTG A	1101 GGTTACATGG AAG	1151 CTTATGGGAA CC
OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM

Figure 1F

1250 GTCC .C	1300 AGGA i	1350 AGAA GG G	1400 .cggc .T
CTGATG(.AC.	ACCGAAGGTG	GGTTGA TA CG	ACATCA
1250 GTTG CCATGACCCT TGCCGTTGTT GCACTCTTCG CTGATGGTCCTA	1 TGCTATC AGAGATGTGG CTTCCTGGAG AGTAAAGGAA ACCGAAAGGA G.G.A C.CT. A.A.AC. CCGG CTGCTAGT GCGTGA.	1350 1350 1350 TATACCATTC TAGGGT CCATFC TAGGGATAG CGGATAG CGGATAG CGGATAG CGGATAG CGG	1400 GGTCCTGACT ACTGCATCAT CACCCCACCG GAGAAGCTGA ACATCACGGC
TGCCGTTGTT	CTTCCTGGAG .AAC. AGT	CTAACAAAGC CCA. TGA.	CACCCCACCG TACT AGTC
CCATGACCCT .TA	AGAGATGTGG C.CT. GCT.	TCGGACCGAG ATA CCA	ACTGCATCAT
1201 CCTGATGTTG C	1251 AACTGCTATC GGA TCT	1301 TGGTTGCAAT GT	1351 GGTCCTGACT CT.
OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM	OsEPSPS_Nat OsEPSPS_AT OsEPSPS_ZM

Figure 1G

1450	TCCCTCGCTG	AGC.	GA.	1500	CACCGGCAAG	TTA.A	TT	(L	1548	GGAACTGA	.CT	· · · · · · · · · · · · · · · · · · ·
	CATGGCCTTC		TC A GGGA.		ACCCTGGTTG	.TC.	.GG TGTTATGTA			CCCCA ACTACTTCGA CGTTCTAAGC ACTTTCGTCA GGAACTGA	AC	TT TGTCACTACC
	ACAGGATGGC	.TA	Α		ACGATCAGGG	. AA.	TA.			CGTTCTAAGC	TTTCA	TGTCA
	TACGATGATC				CGTGCCCGTG	TTC	T6T			ACTACTTCGA	- - :	· · · · · · · · · · · · · · · · · · ·
1401	ATCG	TTT	Α.	1451	CCTGCGCCGA	.TTA	. GG	7 (L	TOGT	ACCTTCCCCA		
		OsEPSPS_AT	OsEPSPS_ZM		Nat	_AT	WZ ⁻				OSEPSPS_AT	OsEPSPS_ZM

Figure 1H

			•	
50 CGCTGGACCT GCCTT.	100 CGCCCGCCCT A.GAG.	150 CGTGATCGCC GTA	200 GTGCCGAGGA .CGA	250 AAGCTGCCGG T.AA.
GGCACCGTGT TAAA	GAGCTCGGCG AAGT	CTGGGCGCCG	GTGCAGGCGG	CGGCACCGTC TTGA
50 GCCA TGGCGACCAA GGCCGCCGCG GGCACCGTGT CGCTGGACCT TCGAGCTAAA GCCTT.	100 CGCCGCGCCG TCGCGCCGCC ACCACCGCCC GAGCTCGGCG CGCCCGCCCT GGCCCTA.GG AAGT A.GAG.	150 ccgc cgtccgcgg ctgcggcgc ctgggcgccg cgtgatcgcc .A ATTTA.ATA.AA. GTA	200 ccgg cggcggcggcggcggcg GTGCAGGCGG GTGCCGAGGA TC TACCGA	250 GCTG CAGCCCATCA AGGAGATCTC CGGCACCGTC AAGCTGCCGG CAT TTGAT.AA.
TGGCGACCAA	TCGCGCCGCC	CGTCCGCGGG ATT	CGGCGGCAGC	CAGCCCATCA
1 ATGGCG	51 CGCCGCGCCG GGCC	101 TCCGCCCCGC A.GA	151 GCGCCGCCGG	201 GATCGTGCTG
ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM

Figure 2A

300 GAG	350 \CAT	400 3CTG	450 3GAT C	500 TGCG
CCTGTCC ACl	TCCACT/	GACAAA(AGTTGA(CG	TCGCAA.
300 AGTC GCTTTCCAAC CGGATCCTCC TACTCGCCGC CCTGTCCGAG .AAG TAG AGGT.GG ACTA	350 GGGACAACAG TGGTTGATAA CCTGCTGAAC AGTGAGGATG TCCACTACAT CGC.ATCCACGT	351 GCTCGGGGCC TTGAGGACTC TTGGTCTCTC TGTCGAAGCG GACAAAGCTG .T.GT CG. AG. AGC	401 CCAAAAGAGC TGTAGTTGTT GGCTGTGGTG GAAAGTTCCC AGTTGAGGAT GC.CCCC CC	451 GCTAAAGAGG AAGTGCAGCT CTTCTTGGGG AATGCTGGAA TCGCAATGCG GAG.:T. ATC.TCC
CGGATCCTCC	CCTGCTGAAC TC	ттватстстс .Aв	GGCTGTGGTG	CTTCTTGGGG ATC.T
GCTTTCCAAC TAG	TGGTTGATAA	TTGAGGACTC C6.	TGTAGTTGTT	AAGTGCAGCT .G.:T.
251 GGTCCAAGTC .CAGAAG	301 GGGACA	351 GCTCGGGGCC .T.GT	401 CCAAAAGAGC	451 GÇTAAAGAGG GA.
ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM

Figure 2B

550 ACTTACGTGC	600 CTTGGTTGTC TC.CG	650 GCACTGACTG .AC	700 GGCAAGGTCA	CTGG CTCCATCAGC AGTCAGTACT TGAGTGCCTT GCTGATGGCT.CATTC. TCGCC
CTGCTGCTGG TGGAAATGCA .CG ACC	CCATTGGCGA	TGTTTCCTTG	GCTACCTGGT AGAA	TGAGTGCCTT
501 GTCCTTGACA GCAGCTGTTA CTGCTGCTGG TGGAAATGCA ACTTACGTGC C.TCCCCG ACC	600 GAGT ACCAAGAATG AGGGAGAGAC CCATTGGCGA CTTGGTTGTC .T TTC.TAC.GAG.G.	601 GGATTGAAGC AGCTTGGTGC AGATGTTGAT TGTTTCCTTG GCACTGACTG GC.CCG CC	551 CCCACCTGTT CGTGTCAATG GAATCGGAGG GCTACCTGGT GGCAAGGTCA CG A.GGCCG AGAA	AGTCAGTACT TCGC
GACA GCAGCTGTTA TCCC. gacc.	ACCAAGAATG TTC.T	AGCTTGGTGC	CGTGTCAATG A.GGC.	CTCCATCAGC ATTC.
501 GTCCTTGACA C.TC	551 TTGATG		651 CCCACCTGTT CG	701 AGCTGT
ZmEPSPS_Nat ZmEPSPS_ZM Consensus	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM

800 ATAAATTAAT GC.G	850 CGTTTTGGTG A.ACG.	900 TAAGGGAGGT CCA	950 ATGCCTCAAG .CAG	951 CGCAAGCTAT TTCTTGGCTG GTGCTGCAAT TACTGGAGGG ACTGTGACTG GTCC.TGCC CCGACA.
800 TTGG CTCTTGGGGA TGTGGAGATT GAAATCATTG ATAAATTAAT CGA CCAGGC.G	850 TCCG TACGTCGAAA TGACATTGAG ATTGATGGAG CGTTTTGGTG CTTTGC.CC. TCA A.ACG.	900 CAGA GCATTCTGAT AGCTGGGACA GATTCTACAT TAAGGGAGGT .TCC TC	950 CAAAAATACA AGTCCCCTAA AAATGCCTAT GTTGAAGGTG ATGCCTCAAG GTAG GGCCGAG	TACTGGAGGG CCGA
TGTGGAGATT CCA	TGACATTGAG	AGCTGGGACA TC	AAATGCCTAT GGC	GTGCTGCAAT
TTGG CTCTTGGGGA TGTGGAGATT	TACGTCGAAA TTG.	CAGA GCATTCTGAT	AGTCCCCTAA	TTCTTGGCTG
751 GCTCCTTTGG CC	801 CTCCATTCCG TCT	851 TGAAAGCAGA .CT		951 CGCAAGCTAT GTC
ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM

Figure 2D

1050 TTTGCTGAG	1100 TAGCGTAAC GTCG	1150 TCAAGGCGA .GA	1200 rcttgctgtg \c	1250 FGGCTTCCTG .CAGT
1050 GTTG TGGCACCACC AGTTTGCAGG GTGATGTGAA GTTTGCTGAG .CGAGCCC A	GAGA TGATGGGAGC GAAGGTTACA TGGACCGAGA CTAGCGTAAC	1150 TGGC CCACCGCGGG AGCCATTTGG GAGGAACAC CTCAAGGCGA GAGCCATC CCGTGA	1151 TTGATGTCAA CATGAACAAG ATGCCTGATG TCGCCATGAC TCTTGCTGTG G AC	1250 TGCCCTCT TTGCCGATGG CCCGACAGCC ATCAGAGACG TGGCTTCCTG GGCTCCCAGTCAGT
AGTTTGCAGG	GAAGGTTACA TGT	AGCCATTTGG .ATC	ATGCCTGATG	CCCGACAGCC
TGGCACCACC	TGATGGGAGC	ccacceces.	CATGAACAAG	TTGCCGATGG.C.T.C
1001 TGGAAGGTTG C	1051 GTACTGGAGA GAA.	1101 TGTTACTGGC CGA	1151 TTGATGTCAA G	12 GT
ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM	ZmEPSPS_Nat ZmEPSPS_ZM

Figure 2E

ZmEPSPS_Nat ZmEPSPS_ZM	1251 GAGAGTAAAG GC	1300 GAGAGTAAAG GAGACCGAGA GGATGGTTGC GATCCGGACG GAGCTAACCA GCAC .TGAGT.	GGATGGTTGC .TG	1300 GAGACCGAGA GGATGGTTGC GATCCGGACG GAGCTAACCA AC .TGA GT.	1300 GAGCTAACCA GT.
ZmEPSPS_Nat ZmEPSPS_ZM	1301 AGCTGGGAGC .ACG	1350 GAGC ATCTGTTGAG GAAGGGCCGG ACTACTGCAT CATCAGGCCG .G CAGGGCT AAT	GAAGGGCCGG	ACTACTGCAT .T	1350 CATCAGGCCG AAT
ZmEPSPS_Nat ZmEPSPS_ZM		1351 CCGGAGAAGC TGAACGTGAC GGCGATCGAC ACGTACGACG ACCACAGGAT ATC CTA TC	GGCGATCGAC CT	1400 ACGTACGACG ACCACAGGAT	1400 ACCACAGGAT .TC
ZmEPSPS_Nat ZmEPSPS_ZM	1401 GGCCATGGCC A	1450 GGCC TTCTCCCTTG CCGCCTGTGC CGAGGTCCCC GTCACCATCC TAG.T.GAGCAATGTAA	ссесствтвс	1450 CCGCCTGTGC CGAGGTCCCC GTCACCATCC .AGCAATGTAA	1450 GTCACCATCC GTAA
ZmEPSPS_Nat ZmEPSPS_ZM	1451 GGGACCCTGG .ATA	1500 CTGG GTGCACCCGG AAGACCTTCC CCGACTACTT CGATGTGCTG .A TCAGTTCC	AAGACCTTCC AGT.	CCGACTACTT	1500 CGATGTGCTG CC
ZmEPSPS_Nat ZmEPSPS_ZM	1501 AGCACTTTCG TCAC	1501 AGCACTTTCG TCAAGAATTA A TCAC6C.G	1. A	·	Figure 2F

201 GTTTAAGGTT TCTGCATCGG TCGCCGCCGC AGAGAAGCCG TCAACGTCGC C..C..A..A AGC..CAGC. .A..T..G.. T......C AGT..T..T. TGAGGCCACG CCTTTGGGGG GCCTCAAAAT CTCGCATCCC GATGCATAAA .TC...T. G..G....A .AAGT..GA GC..T.... T....C..G TGGCCATTCT TCCAACTCCA ACAAACTCAA ATCGGTGAAT TCGGTTTCAT C..A....C AGT....A.A. G..T..... AGT..A..C GMEPSPS_Nat ATGGCCCAAG TGAGCAGAGT GCACAATCTT GCTCAAAGCA CTCAAATTTTT..G. .CTCTC.C.. T..T.....CG..T. .C..G..A.. GMEPSPS_Nat T GMEPSPS_GM C GmEPSPS_Nat GmEPSPS_Nat GmEPSPS_Nat GmEPSPS_GM GMEPSPS_GM GmEPSPS_GM GmEPSPS_GM

Figure 3A

350 CTGCTCTCTC .AG	400 GATATTCATT	450 AGATGACAAA GCTG	500 TTCCCACTAG .CTTC
TTGCTTCTTG	GTATAGTGAG TCA	TGCGTGTGGA .AA.AT	451 ACAACCAAAC AAGCAATTGT TGAAGGCTGT GGGGGATTGT TTCCCACTAG TT
CAATCGAATT TA	ACAACTTGTT .TC.CC.	ACCCTTGGACTG.	TGAAGGCTGT CT
AGTCTCTGTC	ACTGTTGTAG	TGCATTAAGG GGC.CA	AAGCAATTGT
		401 ACATGCTTGG .TT.G	451 ACAACCAAAC TT
GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat
	GGGTCCA AGTCTCTGTC CAATCGAATT TTGCTTCTTG CTGCTCT	301 CCAGGGTCCA AGTCTCTGTC CAATCGAATT TTGCTTCTTG CTGCTCT TAAAGC TAT.GCA	301 CCAGGGTCCA AGTCTCTGTC CAATCGAATT TTGCTTCTTG CTGCTCTTAAAGC TAT.GCA 351 TGAGGGAACA ACTGTTGTAG ACAACTTGTT GTATAGTGAG GATATTC CACACTC.CC. TCAA. 401 ACATGCTTGG TGCATTAAGG ACCCTTGGAC TGCGTGTGGA AGATGAC .TT.G GGC.CATGAA.AT GCT

-igure 3B

550 ATCG	600 AAGC TT	650 3ATTT	700 FGGCA	750 3CGGA
GCTGGT	AAATGC TC	TTGGGG.	TTTCT1	TCCTG(
CCTTGGAAAT	CTGCAGGTGG	GAGAGGCCAA	TGTTGATTGC	AGGGAGGACT
TCC	.GG	AAT.	CCT	
550 ATCT AAAGATGAAA TCAATTTATT CCTTGGAAAT GCTGGTATCG .AGGACG TCCAA	GCTGTGGTTG	601 TACGTACTTG ATGGGGTGCC CCGAATGAGA GAGAGGCCAA TTGGGGATTT CT.ACC TACAATCTC.	TTGGTGCAGA	750 CAAACTGTCC ACCTGTTCGT GTAAATGGGA AGGGAGGACT TCCTGGCGGA TC GCGA.AGCCT. GAT
AAAGATGAAA	CTTGACAGCA	ATGGGGTGCC	CTTAAGCAAC	ACCTGTTCGT
G.	.C.CCT	.CC	AAG.	GCGA.A
501	600	601	651	. —
TAAGGA	CAATGAAGTC CTTGACAGCA GCTGTGGTTG CTGCAGGTGG AAATGCAAGC	TACGTACTTG	GGTTGCTGGT CTTAAGCAAC TTGGTGCAGA TGTTGATTGC TTTCTTGGCA	
A	AG .C.CTCGG TCTT	CT.A.	AGCAAGA CCTCT.G	
GmEPSPS_Nat	GmEPSPS_Nat	GmEPSPS_Nat	GmEPSPS_Nat	GmEPSPS_Nat
GmEPSPS_GM	GmEPSPS_GM	GmEPSPS_GM	GmEPSPS_GM	GmEPSPS_GM

Figure 3C

800 GCT	850 ATA	900 CGT A.G	950 CCA A	1000 GATG
GCTTTG	3 TGTTG/ CC.	ATGGAG	STTGGT IC.T	1 AAGGTG G.
:	AT .	79 .	<u> </u>	. G
CAATACTTGA GC.A.	GGAAATTGAG GA	CTCTGAAGTT.	TGGGATAGGT	TGCTTTTGT1
AGTTAGCAGT GCTCGTCA	TTGGTGATGT .GGC	GTTGAAATGA G	CAGTGGTAAT .TCCG	CTCCTGGCAA GCA
800 AAAC TGTCTGGATC AGTTAGCAGT CAATACTTGA CTGCTTTGCT	850 AGCT CCTTTAGCTC TTGGTGATGT GGAAATTGAG ATTGTTGATA CCGC.CT .GGCGACC	900 TTTC TGTTCCATAT GTTGAATGA CTCTGAAGTT GATGGAGCGT AG CGTG	950 AGTTT CTGTGGAACA CAGTGGTAAT TGGGATAGGT TCTTGGTCCA GATCCG	1000 TGGAGGTCAA AAGTACAAGT CTCCTGGCAA TGCTTTTGTT GAAGGTGATG CG AA GCACCC
751 AAGGTG T	801 TATGGCAGCT CCC	851 AACTGA .GT	901 TTTGGA	
GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM

Figure 3D

1050 GACT CC	1100 AATT .G	1150 1160	1200 CTTG .C.T	1250 CACT .G
10 TGGGA	11 TAAAA G	11 GAGAA	1200 TTTCTGGTCG AAAAGTCTTG CGAGC.T	12 .TGAC/
TGG.	ATG	TCA 	AAA 	CCA.T.
TTAC .A	GGAG T.	ATGG	A.	G.
GCAAC.	racag .TA	STTACC	гтст6.	CAGAT
C.A.	F 3	99 •	<u> </u>	Ö ·
STGGTG	AGCAGT TCATCC	АGСТАА СА	GAGAT1	AAGATO
CTAGOC.	CACA	TGGG	CCAC	GAAC
1050 GTGC CAGTTATTTA CTAGCTGGTG CAGCAATTAC TGGTGGGACT .C TTCCC	1100 ATCACTGTTA ATGGCTGTGG CACAAGCAGT TTACAGGGAG ATGTAAATT ACGCCCTCATCC C.TATG	AGTT CTTGAAAAGA TGGGAGCTAA GGTTACATGG TCAGAGAACA GC T.GGACT	1200 CTGT TTCTGGACCA CCACGAGATT TTTCTGGTCG AAAAGTCTTG .C GCTCACCGAGC.T	1201 CGAGGCATTG ATGTCAATAT GAACAAGATG CCAGATGTTG CCATGACACT A.GAAGT
CAGT	ATGG .C	CTTG T.G.	TTCT GC	ATGT
GTGC .C	GTTA G.	AGTT GC	CTGT.	ATTG
1001 CTTCAAG	1051 ATCACT	1101 TGCTGA/ C(1151 GTGTCA(.CA.	1201 CGAGGC A.GA
ىد				
N	S_Na S_GM	S_Na S_GM	S_N_S_G	N S
ospe ospe	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	PSP PSP
GmEPSPS_Nat GmEPSPS_GM	GME GME	GME GME	GME GME	GmEPSPS_Nat GmEPSPS_GM

Figure 3E

1300 3ATGTGG C.	1350 CACAGAA CG	1400 3TGTGAT .C	1450 SATGACC CT.	1500 TCCAGTA GGT
AGA(CTG(T	ACT.	TAT	TGT
CACTGCTATA TCA	TGATAGCAAT	GGTCCTGATT AAC.	TATAGACACA	CTTGTGGGGA
1300 TGCTGTTGTT GCACTATTTG CTAATGGTCC CACTGCTATA AGAGATGTGG CCCGCACA TCAGC.	1350 CAAGTTGGAG AGTTAAAGAG ACTGAGAGGA TGATAGCAAT CTGCACAGAA .TTCAC. TGACACCT TCG	1351 CTCAGAAAGC ŤAGGAGCAAC AGTTGAAGAA GGTCCTGATT ACTGTGTGAT T.GC.TGT GGAACTC	1401 TACTCCACCT GAGAAATTGA ATGTCACAGC TATAGACACA TATGATGACC AATAGC.CGCTT	1500 ACAGAATGGC CATGGCATTC TCTCTTGCTG CTTGTGGGGA TGTTCCAGTA
GCACTATTTG CGC.	AGTTAAAGAG TGA	ŤAGGAGCAAC .GT	GAGAAATTGA AGC.C.	CATGGCATTC T
1251 TGCTGTTGTT CC	1301 CAAGTTGGAG .TTCAC.	1351 CTCAGAAAGC T.GC.T	1401 TACTCCACCT AAT	1451 ACAGAATGGC
GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM	GmEPSPS_Nat GmEPSPS_GM

Figure 3F

1551 AGTCCTTGAG AGGTTAACAA AGCACTAA G..GT.G..A ..A..G.......G. GmEPSPS_Nat AGMEPSPS_GM GMEPSPS_Nat A GMEPSPS_GM G

Figure 3G

50	100	150	200
CCGAGGCGGA	ACAAGCACGG	GGACGACCTC	TGGACGGCGA
AT	TCT	CT	T
1 ATGAGCCCAG AACGACGCCC GGCCGACATC CGCCGTGCCA CCGAGGCGGATCGT. GCT TTA A.ACTAA A.GA.ATTGA.AATT	100 icg gtctgcacca tcgtcaacca ctacatcgag acaagcacgg .TT	150 CG TACCGAGCCG CAGGAACCGC AGGACTGGAC GGACGACCTC CTTAT CT CTTGATT	200 GC GGGAGCGCTA TCCCTGGCTC GTCGCCGAGG TGGACGGCGA CA .ATTATTA AA .AATGATTTA
GGCCGACATC	TCGTCAACCA	CAGGAACCGC	TCCCTGGCTC
TTA	.TGT	AGA.	GG
AACGACGCCC .GCT .A.GA.A	GTCTGCACCA T	TACCGAGCCG CTT CTT	GGGAGCGCTA .AT
1	51	101	151
ATGAGCCCAG	CATGCCGGCG	TCAACTTCCG	GTCCGTCTGC
TCGT.	TT	.A	GCA
BAR1_Nat	BAR1_Nat	BAR1_Nat	BAR1_Nat
BAR1_ZM	BAR1_ZM	BAR1_ZM	BAR1_ZM
BAR1_AT	BAR1_AT	BAR1_AT	BAR1_AT

Figure 4A

250 GC ATCGCCTACG CGGGCCCCTG GAAGGCACGC AACGCCTACG .G	300 CCAGCGGACG TAA.AC TAA.AC	350 TGGAGGCACA .AG	400 GACCCGAGCG TCT.
250 GGTCGCCGGC ATCGCCTACG CGGGCCCCTG GAAGGCACGC AACGCCTACG AGTGAGTA.AAAAAA	300 GC CGAGTCGACC GTGTACGTCT CCCCCCGCCA CCAGCGGACG GC.AC AA.A. T.AA.AC A.A.CTCA GTT. T.AA.AC	350 SCACGCTCTA CACCCACCTG CTGAAGTCCC TGGAGGCACA GC TGTCCT .AGG	AG AGCGTGGTCG CTGTCATCGG GCTGCCCAAC GACCCGAGCG.A TCTAGGGCTATCT.
CGGGCCCCTG .TAG	GTGTACGTCT CA	CACCCACCTG TGTC	CTGTCATCGG .GG
ATCGCCTACG	CGAGTCGACC GCA AACT	CCACGCTCTA .GC GT.G	AAG AGCGTGGTCG A TCTAG. TCTTG.
201 GGTCGCCGGC AGTG ATT	251 ACTGGACGGC .TT	301 GGACTGGGCT GC	351 GGGCTTCAAG A AA
BAR1_Nat BAR1_ZM BAR1_AT	BAR1_Nat BAR1_ZM BAR1_AT	BAR1_Nat BAR1_ZM BAR1_AT	BAR1_Nat BAR1_ZM BAR1_AT

Figure 46

BAR1_Nat BAR1_ZM BAR1_AT		450 TGCGCATGCA CGAGGCGCTC GGATATGCCC CCCGCGGCAT GCTGCGGGCGA.AA.AA	450 CGAGGCGCTC GGATATGCCC CCCGCGGCAT GCTGCGGGCG A TCT. TA.A.ACAT	GGATATGCCC CCCGCGGCATTCTTA.AA	450 GCTGCGGGCG CA	
BAR1_Nat BAR1_ZM BAR1_AT	451 GCCGGCTTCA .T.A	451 GCCGGCTTCA AGCACGGGAA CTGGCATGAC GTGGGTTTCT GGCAGCTGGAT.AT.T.CAAAAA	AGCACGGGAA CTGGCATGAC GTGGGTTTCT T TCTC .ATA TCAT.	GTGGGTTTCT TC	500 GGCAGCTGGA A	
BAR1_Nat BAR1_ZM BAR1_AT		501 CTTCAGCCTG CCGGTACCGC CCCGTCCGGT CCTGCCCGTC ACCGAGATCTTCTTATATT GAAATTCATCTCTA.AT ATAT	CCCGTCCGGT .TT	CCTGCCCGTC GA	550 ACCGAGATCT A	
BAR1_Nat BAR1_ZM	551 GA AG					

Figure 4C

60 C TTAGCAGAAT CTGCAATGGT GTGCAGAACC CATCTCTTAT CTCCAATCTC C A.T	120 . C.G.G.G. G.G.G.CCAGC. CC. AC.G T CA.A. G.G.G.TT.A.GTA.T. AC.G	180 C CGATTTCGTC GTCGTGGGGA TTGAAGAAGA GTGGGATGAC GTTAATTGGC T.CAGC. A.CC C.C C.C.C.AAG C.CT C.AAAAC.GCT T.A.AAG CAGTT	240 TCTGAGCTTC GTCCTCTTAA GGTCATGTCT TCTGTTTCCA CGGCGTGCAT GCTTCACGGT GCGCGCAAAAA
1 ATGGCGCAAG CG.	61 TCGAAATCCA AGCG	121 CGAGCTTATC A.GCC. A.G	181 TCTGAGCTTC AGCG AGCAA.
CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CP2CP4_ZM CTP2CP4_AT CTP2CP4_GM

Figure 5A

300 gCAAGCAGCC GGCCCGCAAC TCCTCTGGCC TTTCCGGAAC CGTCCGCATT T.C G G G A.G TTCATCTA A.T. T A.GGTAGCG CAGTC G C C TTCTTC.A .A GTA.AG AGT T T GTA.AG AGT T T	360 CCCGGCGACA AGTCGATCTC CCACCGGTCC TTCATGTTCG GCGGTCTCGC GAGCGGTGAAGTCAAAAT CGTT. AAGTT. AA.AGAAAT. TGGAGAGATTGGAGAGAATTAG	361 ACGCGCATCA CCGGCCTTCT GGAAGGCGAG GACGTCATCA ATACGGGCAA GGCCATGCAGA.ATTT.G.T.G.A.AA.T.T.C.C.C.T.C.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.A.A.G.C.C.A.G.C.A.A.G.C.C.A.A.G.C.C.A.A.G.C.C.A.G.C.C.A.G.C.C.A.G.C.C.A.G.C.C.A.G.C.C.C.C	480 GCGATGGGCG CCCGCATCCG TAAGGAAGGC GACACCTGGA TCATCGATGG CGTCGGCAATTAGT CTATG
 CTP2CP4NAT GCA/ CTP2CP4_ZM CTP2CP4_ATT CTP2CP4_GMT	301 CTP2CP4NAT CCC CTP2CP4_ZMG CTP2CP4_ATT CTP2CP4_GMA	361 CTP2CP4NAT ACG CTP2CP4_ZM CTP2CP4_AT	

Figure 5B

540 .CC	GCCTCGTCGG GGTCTACGAT TTCGACAGCA CCTTCATCGG CGACGCCTCG .A.G G A A	660 GCCCGATGGG CCGCGTGTTG AACCCCGCTGC GCGAAATGGG CGTGCAGGTGATTTAGTCA .A.AAACTCA .GGTCA .A.AAACTAGGTCA	720 ACGGTGACCG TCTTCCCGTT ACCTTGCGCG GGCCGAAGAC GCCGACGCCG .T
ATGCCGCCAC GG .CAT	CCTTCATCGG .G	GCGAAATGGG G .GG	GGCCGAAGAC .cc
GATTTCGGCA C	TTCGACAGCATTCT.	AACCCGCTGCTTCA	ACCTTGCGCGGCTCA.
GGCGCCGCTC CT AAT	GGTCTACGAT6C CGTC	660 GCCCGATGGG CCGCGTGTTG AACCCGCTGC GCGAAATGGG CGTGCAGGTG ATCTTCAGTCA	TCTTCCCGTT .T.G AT.GC
TGGCGCCTGA .CC .CTC	GCCTCGTCGG .AG .AGA		ACGGTGACCG .TTT
481 GGCGGCCTCC TG. AAT.G.	541 CTGACGATGG CT	601 CTCACAAAGC TA	661 AAATCGGAAG CG. TG.
CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM

Figure 5C

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Figure 5D		
960 CGCC TGGAAGGCCG CGGCAAGCTC ACCGGCCAAG TCATCGACGT GCCGGGCGAC T.GA. GTAGTT TATTGA. ATAGTTTTATGAA. GAATTTTT.	901 ACCATCCGCC TT	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM
900 CTGC AGGGCTTTGG CGCCAACCTT ACCGTCGAGA CGGATGCGGA CGGCGTGCGCTG	841 AAGATGCTGC T	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM
ACGC CCGGCATCAC GACGGTCATC GAGCCGATCA TGACGCGCGA TCATACGGAATG	781 CTCAACACGC GT. T.GA.	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM
780 TACC GCGTGCCGAT GGCCTCCGCA CAGGTGAAGT CCGCCGTGCT GCTCGCCGGC AACCAACA A .GTAGACAGA CGG A.GTAATTAATA	721 ATCACCTACC T6A	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM

1020 GGCCTTCCC GCTGGTTGCG GCCCTGCTTG TTCCGGGCTC CGACGTCACC 	GCTGATGAA CCCCACCCGC ACCGGCCTCA TCCTGACGCT GCAGGAAATG C.CGA.GG TG C.C T.A.TA.AAT.G. A.T.AT.	1140 TCGAAGTCAT CAACCCGCGC CTTGCCGGCG GCGAAGACGT GGCGGACCTGGGTT.TA.G T.GATA.GTCTGTT.TA.G T.GATA.GTA.GT	1200 CCTCCACGCT GAAGGGCGTC ACGGTGCCGG AAGACCGCGC GCCTTCGATGTC
TTCCGGGCTC .GGAC .CTA	TCCTGACGCTCAT.	GCGAAGACG- .T .AGT.	AAGACCGCG(T .GT
GCCCTGCTTG GC. GTC.	ACCGGCCTCA	CTTGCCGGCG GA T.GAT.	ACGGTGCCGG C CCT.
GGCCTTCCC GCTGGTTGCG GCCCTGCTTG 	GCTGATGAA CCCCACCCGC ACCGGCCTCA TCCTGACGCTCCGA.GGGCTA.TA.AAT.GAT.GAT.GAT.CAT.	CAACCCGCGC TTA.G	GAAGGGCGTC 6 CA6
\circ	TGCTGATGAA .CC .CC	TCGAAGTCATGGTTT	CCTCCACGCT TC .TAGTA
961 CCGTCCTCGA GC. CGC.	1021 ATCCTCAACG G	1081 GGCGCCGACA A TTT	1141 CGCGTTCGCT G
CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM

Figure 5E

1260 .TCCGATTCT CGCTGTCGCC GCCGCCTTCG CGGAAGGGGC GACCGTGATGT GCTGC CGC CCCTTTGTCGC ATA	1320 AGAACTCCG CGTCAAGGAA AGCGACCGCC TCTCGGCCGT CGCCAATGGC G	1380 .TGGCGTGGA TTGCGATGAG GGCGAGACGT CGCTCGTCGT GCGTGGCCGC CTT CCATA CTA CT CT CC.ATA CTA CT	1440 AGGGGCTCGG CAACGCCTCG GGCGCCGCCG TCGCCACCCA TCTCGATCACCAGTAGG CTTT.G GTTATT. GGGCTTTT.G GTTATTTAT CT.GT
CGGAAGGGG .C .CGC.	TCTCGGCCG .GG. .GCG.	CGCTCGTCG .AG. .CTA. GCT.GA.	TCGCCACCC
GCCGCCTTCG TGT.	AGCGACCGCC TCGT TA.G. TCA.GT	GGCGAGACGT TC. TA	GGCGCCGCCG AG ATT.
CGCTGTCGCC GCT.T TCG	CGTCAAGGAA 6G GTG AG	TTGCGATGAG CC CA	CAACGCCTCGAGT GTT
\forall · · ·	AAGAACTCCG .G .GGT.GA. .GGT.GA.	ATGGCGTGGA .CTT .CT	\triangleleft
1201 ATCGACGAAT .AG. .TG.	1261 AACGGTCTGG T	1321 CTCAAGCTCA GA.	1381 CCTGACGGCA T
CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM	CTP2CP4NAT CTP2CP4_ZM CTP2CP4_AT CTP2CP4_GM

Figure 5F

1441 CGCATCGCCA TGAGCTTCCT CGTCATGGGC CTCGTGTCGG AAAACCCTGT CACGGTGGAC	1501 GATGCCACGA TGATCGCCAC GAGCTTCCCG GAGTTCATGG ACCTGATGGC CGGGCTGGGCCAGAAA	1561 GCGAAGATCG AACTCTCCGA TACGAAGGCT GCCTGACGTC
1441 CTP2CP4NAT CGCA CTP2CP4_ZM CTP2CP4_AT A.A. CTP2CP4_GMG.	1501 CTP2CP4NAT GATG CTP2CP4_ZMC. CTP2CP4_AT	156 CTP2CP4NAT GCC CTP4CP4_ZM(CTP2CP4_AT(CTP2CP4_GM

Figure 5G

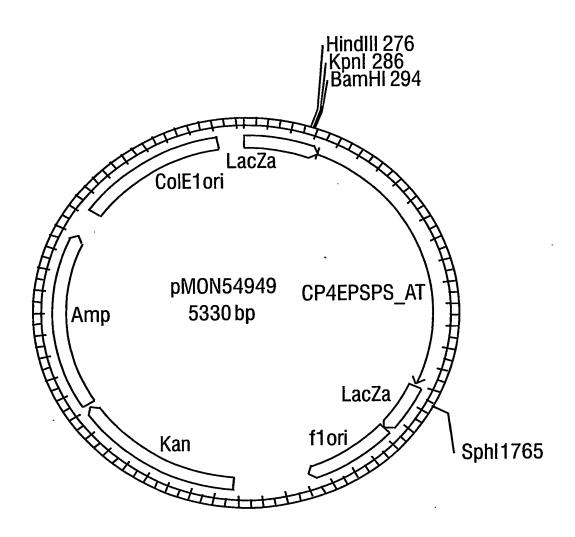


Figure 6

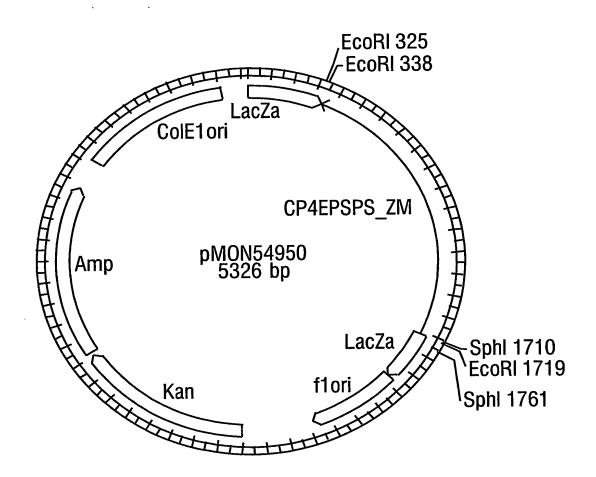


Figure 7

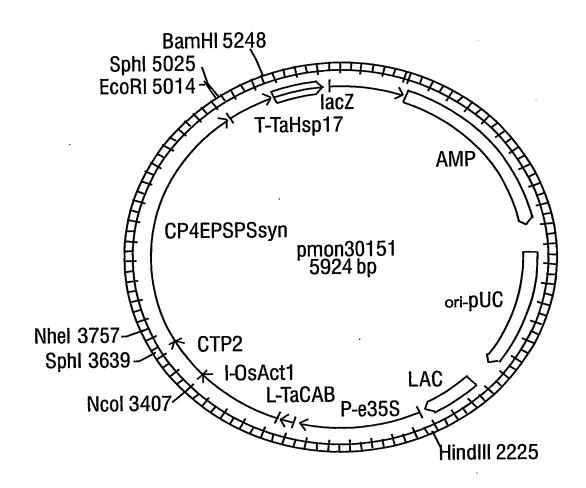


Figure 8

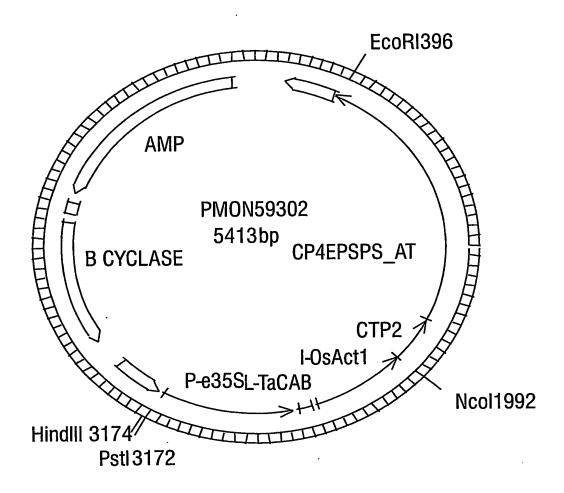


Figure 9

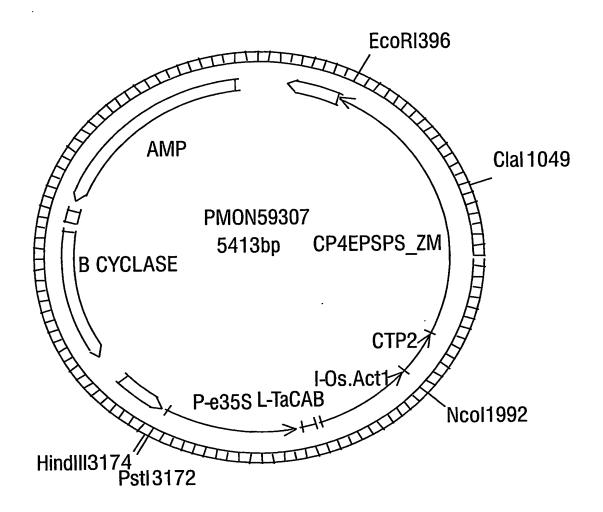


Figure 10

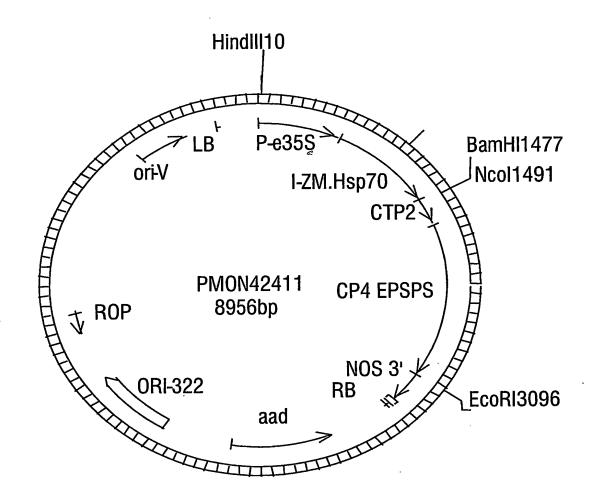


Figure 11

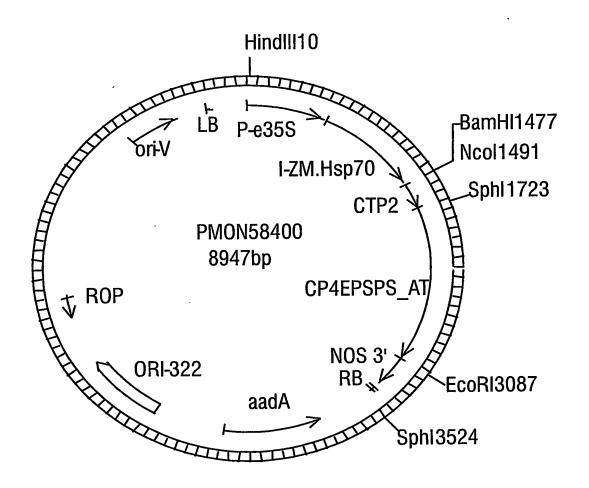


Figure 12

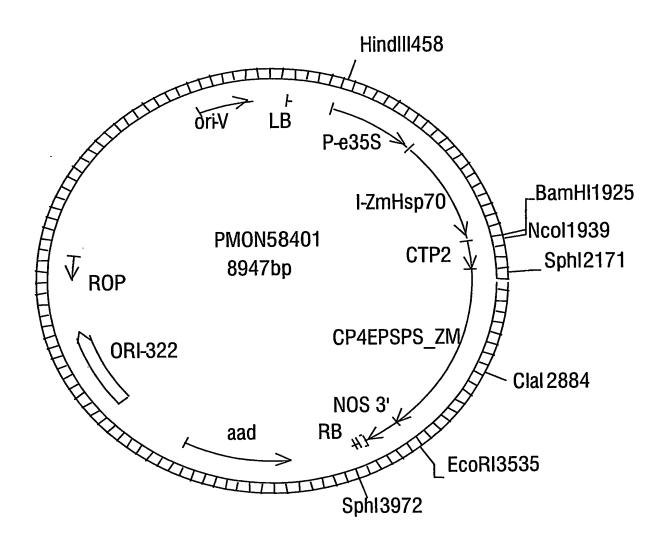


Figure 13

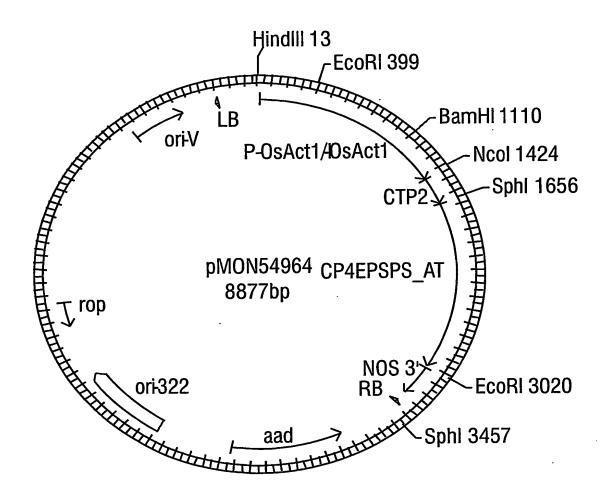


Figure 14

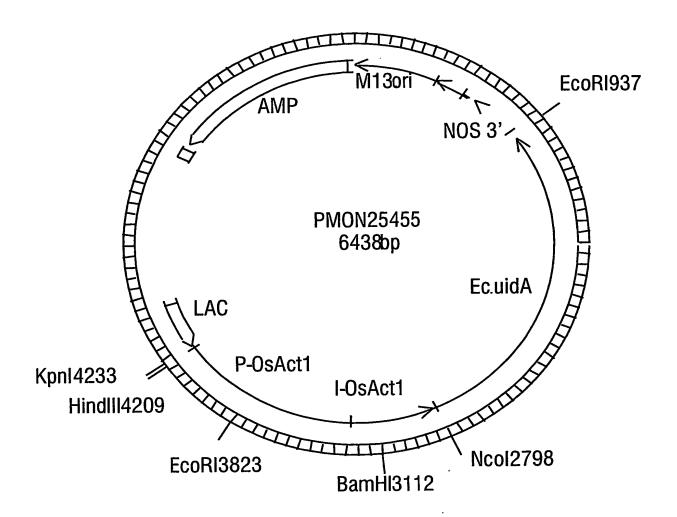


Figure 15

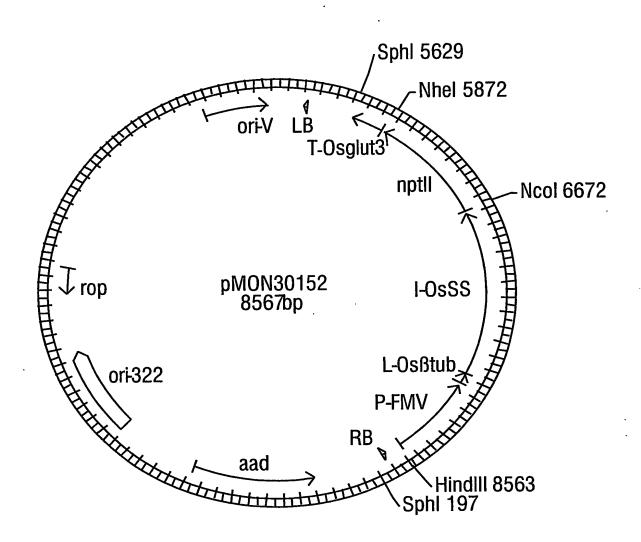


Figure 16

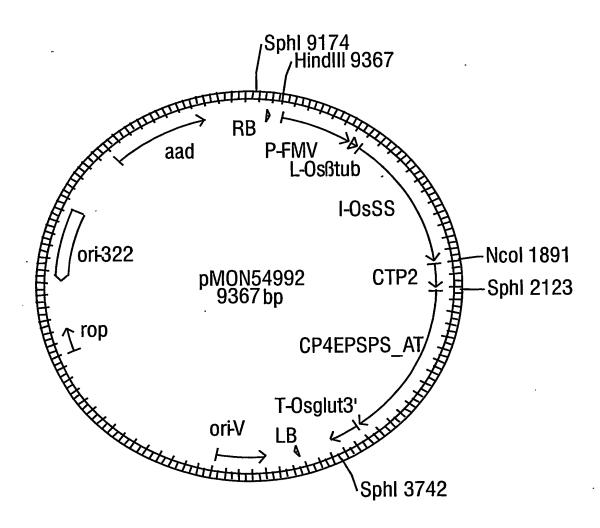


Figure 17

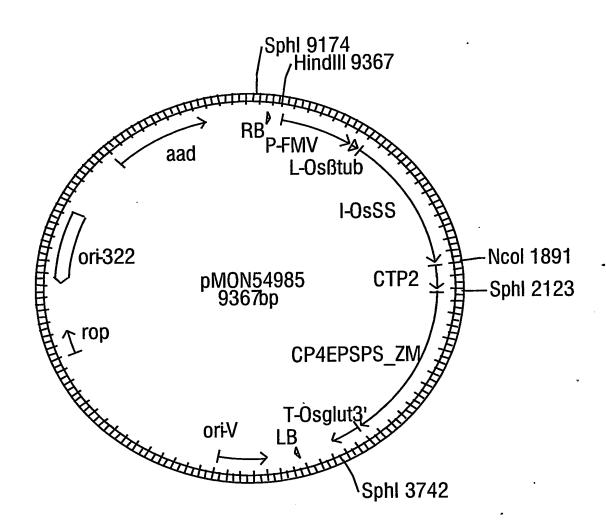


Figure 18

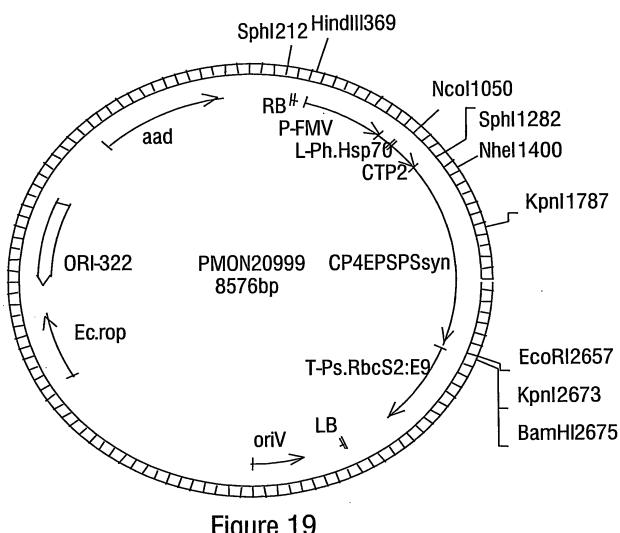


Figure 19

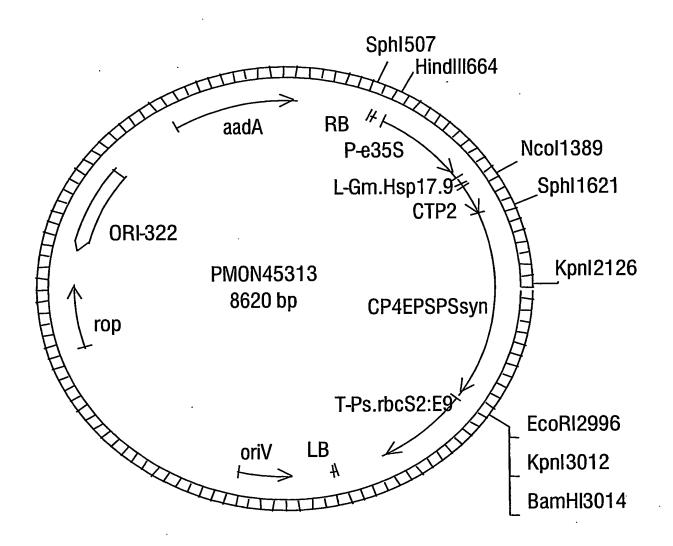


Figure 20

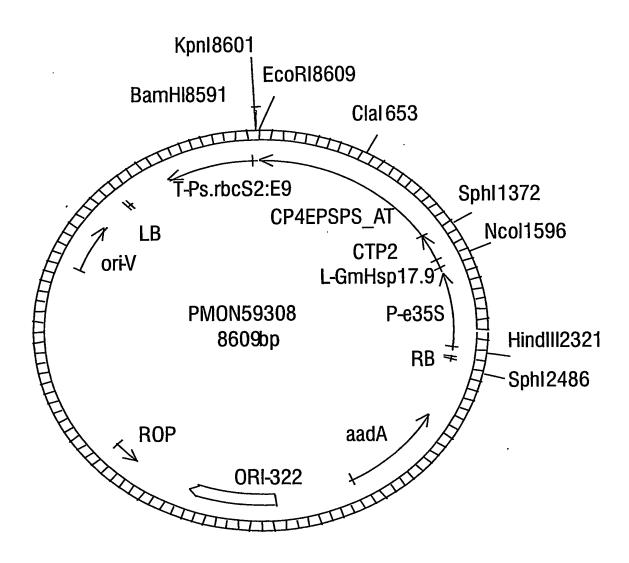


Figure 21

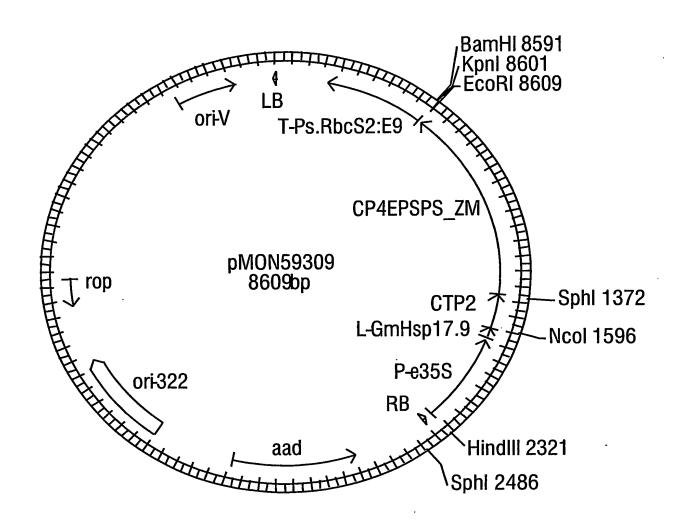


Figure 22

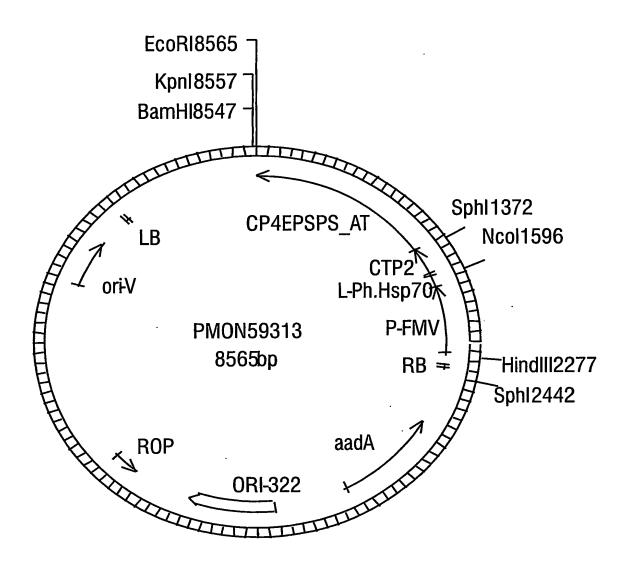


Figure 23

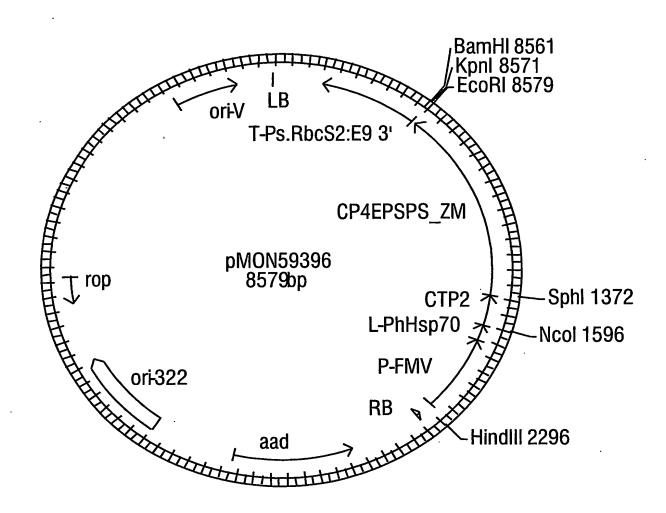


Figure 24

